Human reading *versus* computer-automated reading of chest radiographs in a tuberculosis screening programme in Romania

Gerard de Vries [1,2], Dan Gainaru[3], Sytze Keizer[4], Beatrice Mahler[3], Ileana Radulescu[3], Marina Zamfirescu[5] and Ibrahim Abubakar [6]

[1]KNCV Tuberculosis Foundation, The Hague, The Netherlands. [2]National Institute for Public Health and the Environment, Bilthoven, The Netherlands. [3]Marius Nasta Institute of Pneumology, Bucharest, Romania. [4]Castricum, The Netherlands. [5]Audifon Medical Centre, Bucharest, Romania. [6]Institute for Global Health, University College London, London, UK.

Gerard de Vries (gerard.de.vries@rivm.nl)

Shareable abstract (@ERSpublications)
Automated reading of chest radiographs in a tuberculosis screening programme can reduce human reading to less than 20% of the chest radiographs, avoiding unnecessary TB examinations while maintaining high sensitivity https://bit.ly/3kCFWmq

Cite this article as: de Vries G, Gainaru D, Keizer S, *et al*. Human reading *versus* computer-automated reading of chest radiographs in a tuberculosis screening programme in Romania. *Eur Respir J* 2021; 58: 2004628 [DOI: 10.1183/13993003.04628-2020].

Received: 24 Dec 2020
Accepted: 24 Feb 2021

To the Editor:

One of the interventions in tuberculosis (TB) control is to screen people at high risk for TB with chest radiography [1]. Chest radiography in TB screening programmes are usually read by a radiographer or a pulmonologist specialised in TB. In recent years, computer-aided detection (CAD) software has become available for automated reading of CXRs and identifying people with presumptive TB [2, 3] and for TB screening [4, 5]. A systematic review published in 2016 concluded that the evidence of diagnostic accuracy of CAD was limited by the small number of studies, co-authored by owners of the only CAD software on the market at that time, and not generalisable to low TB and HIV settings [6]. The application of CAD software for TB detection has to our knowledge not been assessed in Europe.